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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/829,275

04/22/2004

Kazuaki Suzuki

1551-0155PUS1

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2292 7590 11/25/2008  
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EXAMINER

WENDELL, MARK R

ART UNIT

PAPER NUMBER

3635

NOTIFICATION DATE

DELIVERY MODE

11/25/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/829,275	<b>Applicant(s)</b> SUZUKI ET AL.	
	<b>Examiner</b> MARK R. WENDELL	<b>Art Unit</b> 3635	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 October 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7-9, 12-17, 19-21 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Reetz (US 4957186). Regarding claims 1 and 13, Reetz illustrates in Figure 2 a building comprising a structural member (14 and 22); and

A joint structure, comprising:

- A gusset plate (34), said gusset plate being formed from a flat plate having first and second opposed faces; and
- A plurality of splice plates (52) connected to said gusset plate (34), each of said plurality of splice plates being constructed from section steel having a cross-section perpendicular to a longitudinal axis thereof that is non-rectangular, at least one of said plurality of splice plates (52) having a face in direct contact with the first opposed face of said gusset plate and at least another of said plurality of splice plates having a face in direct contact with the second opposed face of said gusset plate.

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Regarding claims 2 and 14, Reetz illustrates in Figures 1-4 the gusset plate connected to a first structural member (14 or 104) and the plurality of splice plates connected to a second structural member (22).

Regarding claims 3-4 and 15-16, Reetz illustrates in Figures 1 and 2 the first gusset plate (34) being connected to a second gusset plate (66). The examiner notes that the first gusset plate (34) is always in a vertical position, but the second gusset plate (66) can be moved and manipulated into a vertical or horizontal position due to the connection of the plate to the first gusset plate and the splice plates.

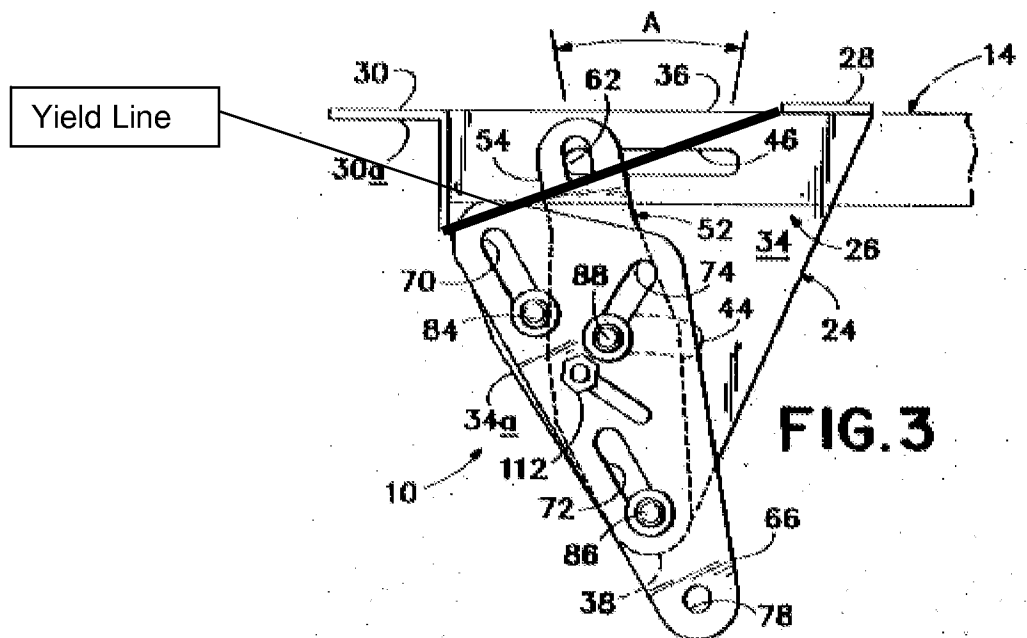
Regarding claims 5 and 17, Reetz illustrates the splice plates (52) having a non-rectangular cross section.

Regarding claims 7 and 19, Reetz illustrates in Figure 2 the gusset plate (34) including a rib (28) connected to the top edge and vertical upright edge.

Regarding claims 8 and 20, Reetz illustrates in Figure 2 the gusset plate (34) including a first joining plate (30) connected to a first edge thereof and a second joining plate (28) connected to a second edge thereof, and at least one of said plurality of splice plates (52) extends toward a corner of the gusset plate (See Figures 3 and 4) beyond a yield line of the gusset plate to increase the buckling strength of the gusset plate, said yield

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line being formed by a diagonal line extending from an edge of the first joining plate to an edge of the second joining plate.



Regarding claims 9, 12, 21 and 24, Reetz illustrates in Figure 2 the gusset plate including first and second opposed faces and first and second ends with the end being connected by an edge (any closed, solid structure fits this) and the ends having a rib connected thereto (28 and 30) with the first and second faces having no stiffening ribs connected thereto.

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 10-11, 18, 22-23 and 25-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reetz (US 4957186). Regarding claims 6 and 18, Reetz does not distinctly specify the location where the joint structure is formed; however the joint structure assembled by Reetz exhibits the structural limitations set forth by the claims.

Regarding claims 10-11 and 22-23, Reetz illustrates in Figure 2 reinforcing ribs (108 and 109) on the structural member (104). When assembled (see Figure 1), the reinforcing ribs are connected to the gusset plate (34) via the structural member (104) and do not cross the yield line (as shown in the Figure above). Reinforcing rib 109 stays above the yield line while one of the reinforcing ribs 108 stays below the yield line.

Regarding claims 25-32, the structural limitations of Reetz as described above would make the method of assembling the joint structure of the building obvious.

Regarding claim 26, Reetz does not use any onsite welding.

***Response to Arguments***

Applicant's arguments filed 10/10/08 have been fully considered but they are not persuasive. Regarding the applicant's argument:

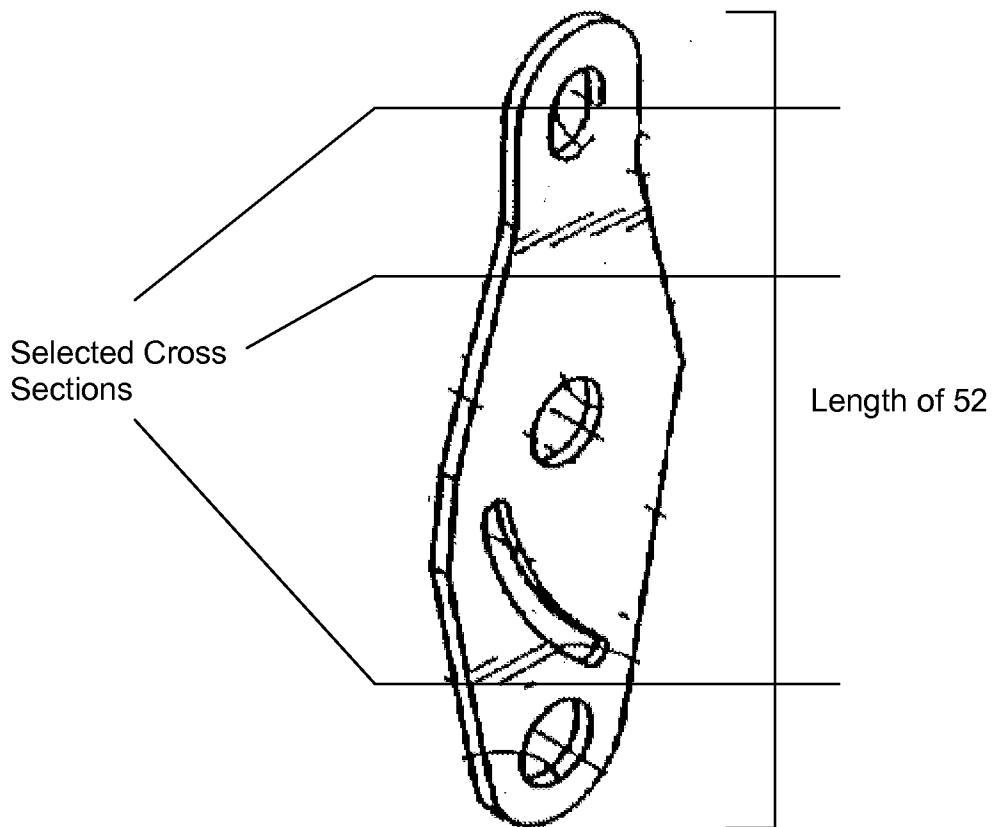
“Referring to the Reetz reference, the Examiner has considered the web 34 of Reetz to be the gusset plate of the presently claimed invention and the arm mechanisms 52 to be the splice plates of the presently claimed invention. Applicants submit that the Reetz device is quite different from the present invention in both structure and function. Specifically, with regard to the structure, the element 52 of Reetz does not have a "non-rectangular" cross-section as in the presently claimed invention. Referring to Figure 2 of Reetz, the element 52 would have a rectangular cross-section at every, point along a length thereof. In view of this, Reetz fails to anticipate independent claims 1, 13 and 25 of the present invention.

To the extent the Examiner has taken the position that a cross-section along the length of the element 52, and through the thickness of the element 52 (parallel to the Surface of the page in Figure 3 of Reetz, for example) would be the non-rectangular cross-section of the element 52, it is noted that the Examiner has not explained this in the Office Action. Therefore, clarification of the Examiner's position is respectfully requested. However, in order to expedite prosecution of the present application, claims 1, 13 and 25 have been further amended to clarify that the non- rectangular cross-section should be taken perpendicular to a longitudinal axis of the splice plate (perpendicular to the length dimension of the splice plate, which would be perpendicular to the surface of the paper in Figure 3 Of Reetz). Since the cross-section of the element

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52 of Reetz is rectangular, when the cross-section is taken along a plane that is perpendicular to the longitudinal axis of the element 52, Applicants respectfully submit that Reetz clearly fails to teach this aspect of the present invention.”

The examiner is perplexed with regard to this argument. The following illustration hopefully will clarify the examiner's position:



The examiner notes that the cross-sections in this instance are not rectangular.

Rectangular is by definition four sided, with right angles formed at the intersection of each side. This is certainly not the case with these selected cross sections. The



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examiner notes that the object is slightly tilted within the Figure, however the inherent shape of the plate is not rectangular and thus would lend to non-rectangular cross-sectional lengths. The examiner further notes that if thickness is meant by the applicant, the claim language should be re-worded to address that limitation. As the claim language stands, the limitation can be read broader than this intended limitation.

Regarding applicant's argument:

“With regard to the function of Reetz, it is noted, that Reetz functions completely different from the presently claimed invention. Specifically, in Reetz, the arm structures 54 and 56 are free to rotate in the plane of the tile truss. Therefore, the adjustment of the attachment becomes much easier at a joint constructed from web 34 and arm mechanism 52. On the other hand, in the present invention, the diagonal brace 3 and the gusset plate 21 are completely bolted to each other through the splice plates.”

The examiner notes that the argument is purely functional. In order to be given patentable weight, a functional recitation must be expressed as a “means” for performing the specified function, as set forth in 35 USC 112, 6<sup>th</sup> paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language (*In re Fuller*, 1929 C.D. 172; 388 O.G. 279). The examiner notes that the structural limitations of the claims are met as shown above in the Office Action.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK R. WENDELL whose telephone number is (571)270-3245. The examiner can normally be reached on Mon-Fri, 7:30AM-5PM, Alt. Fri off, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on (571) 272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard E. Chilcot, Jr./  
Supervisory Patent Examiner, Art Unit 3635

/M. R. W./  
Examiner, Art Unit 3635  
November 13, 2008